REMARKS

Favorable reconsideration of the above-identified application is requested in view of the following remarks.

Examiner Choobin is thanked for indicating that Claims 4, 5 and 14 are allowable.

Claim 20 is newly added and Claim 11 remains canceled. Thus, Claims 1-10 and 12-20 are pending, with Claims 1, 7, 9, 10, 12 and 13 being independent.

The Official Action rejects Claims 1-3, 6-10 and 12 under 35 U.S.C. § 103(a) as being anticipated by U.S. Patent No. 6,049,354, hereinafter *Sekine*, in view of U.S. Patent No. 7,721,427, hereinafter *White*. The Official Action also rejects Claims 15-19 under 35 U.S.C. § 103(a) as being unpatentable over *Sekine* in view of *White* and further in view of U.S. Patent Application Publication No. 2003/0030729, hereinafter *Prentice*.

An exemplary embodiment is referred to beginning in paragraph [0045] of the present application in connection with Fig. 3. The corrector 121 corrects the blocks input from the divider 101 in accordance with a previously determined correction method. Paragraph [0048] describes that the scene change detector 124 receives the differential block from the subtractor 102, and detects scene changes in the motion image based on the differential image of one frame. Then, when a scene change is detected, scene change information representing the scene change is input to the scene determiner 122, the correction parameters are input to the correction data generator 123, and the correction table from the correction data generator 123 is input to the corrector 121. Basically, it is desired to apply one correction method to all the frames in one scene, and then apply a different

correction method to the frames of another scene, if appropriate. Accordingly each time a scene changes, an appropriate correction table is selected based on that scene.

Broadly encompassing that embodiment, Claims 1, 7, 9, 10 and 12 refer to selection of a correction process from among a plurality of correction processes. For example, Claim 1 defines a motion image processor. An acquiring portion is for acquiring scene change information indicating a scene change in a motion image. A determining portion is for selecting, when the scene change information is acquired, one of a plurality of correction processes for the motion image until next scene change information is acquired.

Sekine is directed toward an image shake-correction system with selective image-shake correction. In column 2, lines 40-50 of *Sekine*, it is described that in the case of the image recorded by a domestic video camera, noise or synchronization deviation may occur each time a scene change appears. That is, no correlation between images is obtained when a scene changes and motion detection errors occur, thereby producing instantaneous vibrations in the image that are disagreeable. Basically, when a scene changes, the device determines that severe shaking has occurred and overcompensates, thereby shaking the image.

To remedy the above-noted problem, *Sekine* discloses a shake-correction system that detects scene changes and selectively operates (turns on/off) the shake-correction to avoid the problem of instantaneous vibrations at or around the scene changes.

The Official Action recognizes that *Sekine* does not disclose selection of a shake correction process from among a plurality of shake correction processes, and

seems to rely on *White* for a disclosure of that subject matter. Further, the Official Action proposes that it would have been obvious to modify *Sekine* in view of *White* to arrive at the claimed subject matter.

White discloses an imaging system for correcting image non-uniformities. As discussed in the Background of the Invention section, *White* relates to infrared imaging systems used in night vision and target detection systems which use thermal energy. As discussed by *White*, one problem encountered with past systems relates to focal plane arrays (i.e., the thousands of infrared photon detectors). The problem is that not all the detectors have the same sensitivity to incoming thermal energy. As a result, the uncompensated image from a focal plane array will have fixed-pattern noise. To correct this issue, past systems have used source based systems to apply static correction coefficients to detector signals. However, those systems are problematic when the exposed level differs from the calibrated level, thereby creating more noise.

Another past solution uses adaptive scene-based nonuniformity correction to continually update correction coefficients as required by changing conditions. They use information from the scene being imaged to determine the correction coefficients. Because fixed pattern noise remains in the same place when a scene moves, i.e., when the camera pans, the fixed pattern noise is distinguishable from moving scene detail. When the camera is stable and image motion is not present, these scene-based systems tend to confuse scene details with fixed-pattern noise resulting in image degradation due to correction.

White addresses that problem by turning the nonuniformity correction on/off if the image is moving/still. As described in the Summary section of *White*, a triggering

circuit selectively enables the scene based nonuniformity correction circuit to update the current scene-based nonuniformity correction terms in response to a motion signal from a motion detector. By utilizing native scene motion to trigger the nonuniformity correction updating process, limitations of previous nonuniformity correction systems are avoided. A further description in connection with Fig. 1 in *White* describes that (emphasis added) "[t]he scene-based nonuniformity correction processor 30 receives the corrected data stream 26 and provides current scene-based nonuniformity correction terms 32 to the nonuniformity correction processor 24. The current scene-based nonuniformity correction terms 32 are updated only when the scene (not shown) corresponding to the electromagnetic energy 16 is moving." Basically, the nonuniformity correction processor is turned on/off depending on image movement.

Claim 1 is allowable at least because it would not have been obvious to modify *Sekine* in view of *White* as suggested in the Official Action. For example, *Sekine* is entirely concerned with image shake correction. That is, when a camera shakes, the output image can be corrected to appear more stable. However, *White* is concerned with an entirely different matter, i.e., correction of the detected intensity of thermal energy, and turning on/off the intensity correction depending on movement of the image ("scene" movement as referred to in *White*). Therefore, a skilled person interested in modifying *Sekine's* shake correction device would not have looked toward *White's* thermal energy intensity detection correction device for modification suggestions.

Should this rejection be maintained, it is requested that it be explained why/how a skilled person would apply the thermal energy intensity detection

correction in *White* to the shake correction technology in *Sekine*, beyond a mere statement that they are both concerned with image correction. That is, it is apparent that the two documents are concerned with forms of image correction, but it seems that one skilled in the art would readily recognize the significant differences and incompatibilities between the two and recognize that the disclosure in *White* is not applicable to *Sekine*.

Even if one were motivated to modify *Sekine*, arguendo, to include some of *White's* features, the resulting device would still not include at least the claimed subject matter relating to selecting, when scene change information is acquired, one of a plurality of correction processes for a motion image. *Sekine* does not disclose selection of one of a plurality of shake correction processes, and rather only turns on/off the single shake correction process. The proposed combination is deficient in two ways. First, *White* does not disclose operating based on scene change as described in the claims. Rather, *White* disclosed operating based on image movement/non-movement. Second, *White* does not select one of a plurality of correction processes, but rather turns on/off the single nonuniformity correction processor depending on the movement/non-movement of the image.

For at least the reasons discussed above, Claim 1 is allowable.

Claims 7, 9, 10, 12 and 13 are allowable for similar reasons as those set forth above with regard to Claim 1.

Claims 2, 3, 6 and 8 are allowable at least by virtue of their dependence from allowable independent Claims 1 and 7, and because they define subject matter that additionally defines over the cited documents. For example, Claim 3 refers to multiple correction processes, the Official Action states that *White* discloses multiple

correction processes by way of "storage for storing a plurality of correction processes beforehand (correction terms 56 are previously stored)". However, that interpretation of *White* is not correct. Column 4, lines 58-67 of *White* describes that when scene motion is sufficiently present, the intermediate scene-based correction terms 42 are enabled to update the previously generated scene-based correction terms 56. The scene-based correction terms seem to be nothing more that feedback data from the stream sent to the nonuniformity correction processor. A stream of data "B" that is added/not-added to the data "A" at the adder 54 (Fig. 2) cannot be considered to be a plurality of correction processes as referred to in the claims. Therefore, *White* does not disclose a plurality of correction processes and Claim 3 is allowable.

Claims 15-20 are rejected as being unpatentable over *Sekine* in view of *White* and further in view of *Prentice*. *Prentice* does not remedy the deficiencies of the rejections of independent Claims 1, 7, 9, 10, 12 and13 from which they depend, and are therefore allowable for at least the same reasons.

Based on the remarks above, it is requested that all the rejections be withdrawn and that this application be allowed in a timely manner.

Should any questions arise in connection with this application, or should the Examiner feel that a teleconference with the undersigned would be helpful in

resolving any remaining issues pertaining to this application, the undersigned requests that he be contacted at the number indicated below.

Respectfully submitted,

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(INCLUDING ATTORNEYS FROM BURNS DOANE SWECKER & MATHIS)

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